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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/804,665      | 03/18/2004  | Chin Wan Wu          | EL-1                | 8013             |

1054 7590 01/24/2005

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| EXAMINER |
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WELCH, GARY L

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3765

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/804,665 | <b>Applicant(s)</b><br>WU, CHIN WAN |  |
|                              | <b>Examiner</b><br>Gary L. Welch     | <b>Art Unit</b><br>3765             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03182004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

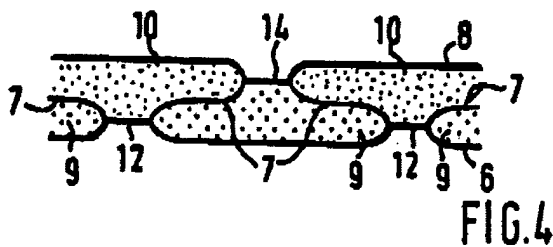
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Bramham (U.S. 5,067,921).

Bramham discloses a wetsuit having a plurality of laminated fiber layers (6, 7, 8), a plurality of expandable interconnected air channels (9, 10) formed between at least two of the fiber layers and a valve 5 connected for selectively admitting air under pressure into the air channels and forming inflated regions in the wet suit.



With regard to claims 2 and 7, the air channels (9, 10) are configured for forming a plurality of adjacent cells.

With regard to claims 4 and 8, the cells are non-inflatable regions where the fiber layers are affixed to one another.

With regard to claim 5, the inflated regions are in the chest portion of the wetsuit (Figure 1).

With regard to claim 6, the invention is disclosed in one or more of the above rejected claims.

With regard to claim 9, the air channels are configured to form a repeating pattern of inflated and non-inflated regions.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bramham (U.S. 5,067,921).

Bramham discloses the invention substantially as claimed above.

However, Bramham does not disclose that the cells are hexagonal in shape.

A review of applicant's specification does not provide any criticality (i.e., advantage) for why the cells are to be hexagonal in shape. The specification only states that the cells can be hexagonal or any other configuration limited only by the imagination of the manufacturer of the wetsuit.

Therefore, since there is no stated criticality or advantage for the cells to be hexagonal in shape, one of ordinary skill in the art would have been motivated to configure the cells to be hexagonal in shape in order to ensure strength and rigidity of the garment since there would be six seams within a small area.

With regard to claim 10, the invention is disclosed above.

***Conclusion***

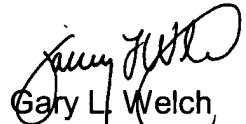
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lastnik '072 discloses a protective suit comprised of multiple layers wherein air channels are formed between the layers for inflating the suit. Nuckols et al. '469 disclose a liquid insulated garment for water diving. Mitchell '774 discloses a wet suit having multiple layers where hexagonal air channels are formed therebetween for insulation and buoyancy. Kreckl '263 discloses a multi-layered protective wet suit. Ritzinger, Jr. et al. '405 disclose an altitude pressure suite having multiple layers separated by air channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Welch whose telephone number is (571) 272-4996. The examiner can normally be reached on Mon-Fri 5:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3765

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gary L. Welch  
Primary Examiner  
Art Unit 3765

glw